## Exhibit 5

#### IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

MacLean-Fogg Company,	
Plaintiff,	
v.	Civil Action No. 2:07-cv-00472-LED (Judge Davis)
Eaton Corporation,	(Judge Davis)
Defendant.	

# MACLEAN-FOGG'S SUPPLEMENTAL DISCLOSURE OF ASSERTED CLAIMS AND INFRINGEMENT CONTENTIONS OF U.S. PATENT NO. 7,284,520 PURSUANT TO P.R. 3-1

Plaintiff, MacLean-Fogg Company, hereby discloses its asserted claims and infringement contentions to Defendant, Eaton Corporation, pursuant to P.R. 3-1.

In the chart below, MacLean-Fogg has identified the asserted claims of U.S. Patent No. 7,284,520 pursuant to P.R. 3-1(a), the accused products pursuant to P.R. 3-1(b), and the priority date of U.S. Patent No. 7,284,520 pursuant to P.R. 3-1(e). Specifically, photographs 1-11 represent components of Eaton Part No. 328347.

Pursuant to P.R. 3-1(c), a separate claim analysis is attached hereto at Exhibit 1 specifically identifying where each element of each asserted claim of U.S. Patent No. 7,284,520 is found within the accused products. For reference, the bracketed numbers corresponding to the labeled numbers on the photographs of Exhibit 2 have been added to the claim analysis of Exhibit 1. Where appropriate, text is used to label the photographs with various claim elements as well.

Pursuant to P.R. 3-1(d), MacLean-Fogg contends that all of the claim elements are literally present in the accused products. However, MacLean-Fogg reserves the right to assert infringement under the doctrine of equivalents in response to Eaton's non-infringement positions.

U.S. Patent Number 7,284,520		
Priority Date of Claims: 18 Oct 2002		
Claims Infringed	Accused Product(s)	
1	Eaton Part No. 328347	
2	Eaton Part No. 328347	
3	Eaton Part No. 328347	
4	Eaton Part No. 328347	
6	Eaton Part No. 328347	
7	Eaton Part No. 328347	
8	Eaton Part No. 328347	
10	Eaton Part No. 328347	
11	Eaton Part No. 328347	
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15	Eaton Part No. 328347	
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46	Eaton Part No. 328347	
47	Eaton Part No. 328347	
48	Eaton Part No. 328347	

U.S. Patent Number 7,284,520 Priority Date of Claims: 18 Oct 2002	
Claims Infringed	Accused Product(s)
49	Eaton Part No. 328347
50	Eaton Part No. 328347
51	Eaton Part No. 328347
53	Eaton Part No. 328347
55	Eaton Part No. 328347
57	Eaton Part No. 328347
60	Eaton Part No. 328347
61	Eaton Part No. 328347
63	Eaton Part No. 328347
64	Eaton Part No. 328347
65	Eaton Part No. 328347
66	Eaton Part No. 328347
67	Eaton Part No. 328347
69	Eaton Part No. 328347
71	Eaton Part No. 328347

Dated: June 20, 2008 By: <u>/s/ Richard E. Stanley, Jr.</u>

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#### **CERTIFICATE OF SERVICE**

I hereby certify that the following counsel of record who have consented to electronic service have been served with a copy of this document through the Court's CM/ECF system.

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/s/ Richard E. Stanley, Jr.

# Exhibit 1

#### U.S. Patent No. 7,284,520

- 1. A process for manufacturing a valve lifter body [110], comprising the steps of:
  - a) providing a forgeable material;
  - b) cold forming a first lifter cavity [130] into the forgeable material so that:
    - i) the first lifter cavity [130] extends axially into the forgeable material from a first lifter opening [132] that is shaped to accept a roller [190];
    - ii) the first lifter cavity [130] includes a first inner lifter surface [150] provided with a first wall [151], a second wall [153], a third wall [156], a fourth wall [157], a first curved lifter surface [154], a second curved lifter surface [155], and a lifter surface [152];
    - iii) the first wall [151] faces the second wall [153];
    - iv) the second wall [153] faces the first wall [151];
    - v) the third wall [156] extends axially into the valve lifter body [110] from the first lifter opening [132], faces the fourth wall [157], and terminates at least in part at the second curved lifter surface [155];
    - vi) the fourth wall [157] extends axially into the valve lifter body [110] from the first lifter opening [132], faces the third wall [156], and terminates at least in part at the first curved lifter surface [154];
    - vii) the first curved lifter surface [154] extends from the fourth wall [157] and terminates, at least in part, at the lifter surface [152];
    - viii) the second curved lifter surface [155] extends from the third wall [156] and terminates, at least in part, at the lifter surface [152];
    - ix) the lifter surface [152] is, relative to the curved lifter surfaces [154, 155], generally flat and oriented to be generally orthogonal to a valve lifter axis [111];
  - c) cold forming a second lifter cavity [131] into the forgeable material so that:
    - i) the second lifter cavity [131] extends axially into the valve lifter body [110] from a second lifter opening [133];
    - ii) the second lifter cavity [131] includes a second inner lifter surface [170]; and
  - d) providing the forgeable material with a lifter well [162].
- 2. The process for manufacturing the valve lifter body [110] according to claim 1 further comprising the step of fabricating, at least in part, a socket body [310] through cold forming.
- 3. The process for manufacturing the valve lifter body [110] according to claim 1 further comprising the step of fabricating, at least in part, a leakdown plunger [210] through cold forming.
- 4. The process for manufacturing the valve lifter body [110] according to claim 1 further comprising the steps of:
  - a) providing the valve lifter body [110] with a first end;
  - b) providing the valve lifter body [110] with a second end;
  - c) cold forming an outer lifter surface [180] onto the forgeable material; and

- d) cold forming an undercut lifter surface [see text] into the outer lifter surface [180] so that the undercut lifter surface [see text] extends from the second end of the valve lifter body [110].
- 6. The process for manufacturing the valve lifter body [110] according to claim 1 further comprising the steps of:
- a) cold forming the forgeable material to provide an outer lifter surface [180], a first end, and a second end; and
- b) cold forming the second end to provide a generally cylindrical surface [see text] having a reduced diameter relative to the outer lifter surface [180].
- 7. The process for manufacturing the valve lifter body [110] according to claim 1 wherein the step of cold forming the second lifter cavity [131] into the forgeable material provides the lifter well [162] and a lead surface [164].
- 8. The process for manufacturing the valve lifter body [110] according to claim 1 wherein the step of cold forming the first lifter cavity [130] into the forgeable material further includes providing the lifter surface [152] with a generally circular shape.
- 10. The process for manufacturing the valve lifter body [110] according to claim 1 further comprising the step of machining the second inner lifter surface [170] to provide a lead surface [164] that extends radially from the lifter well [162] and terminates, at least in part, at the second inner lifter surface [170] of the second lifter cavity [131].
- 11. The process for manufacturing the valve lifter body [110] according to claim 1 wherein the step of cold forming the second lifter cavity [131] into the forgeable material further includes providing at least a portion of the lifter well [162] and a lead surface [164] that is frusto-conical in shape.
- 12. The process of claim 1 wherein the step of cold forming the first lifter cavity [130] further includes:
- a) providing a first angled wall [169-a], a second angled wall [169-b], a third angled wall [169-c], and a fourth angled wall [169-d] that extend axially into the forgeable material from the first lifter opening [132];
- b) providing a first angled lifter surface [165] so that it is located adjacent to the first wall [151], the fourth wall [157], and the first angled wall [169-a];
- c) providing a second angled lifter surface [166] so that it is located adjacent to the first wall [151], the third wall [156], and the fourth angled wall [169-d];
- d) providing a third angled lifter surface [167] so that it is located adjacent to the second wall [153], the third wall [156], and the second angled wall [169-b];
- e) providing a fourth angled lifter surface [168] so that it is located adjacent to the second wall [153], the fourth wall [157], and the third angled wall [169-c];
- f) cold forming the first angled wall [169-a] so that it terminates, at least in part, at the first angled lifter surface [165];
- g) cold forming the second angled wall [169-b] so that it terminates, at least in part, at the third angled lifter surface [167];

- h) cold forming the third angled wall [169-c] so that it terminates, at least in part, at the fourth angled lifter surface [168];
- i) cold forming the fourth angled wall [169-d] so that it terminates, at least in part, at the second angled lifter surface [166]; and
- j) cold forming at least one of the angled lifter surfaces [165, 166, 167, 168] so that it extends from at least one of the angled walls [169-a-d] towards the valve lifter axis [111] and is oriented to be at an angle [400A] relative to a plane that is orthogonal to the valve lifter axis [111], the angle measuring between twenty-five and about ninety degrees.
- 15. A process for manufacturing a valve lifter body [110], comprising the steps of:
  - a) providing a forgeable material;
  - b) cold forming a first lifter cavity [130] into the forgeable material so that:
    - i) the first lifter cavity [130] is shaped to accept a roller [190];
    - ii) the first lifter cavity [130] is provided with a first lifter opening [132] that is located at a first end;
    - iii) a first inner lifter surface [150] extends axially into the forgeable material from the first lifter opening [132] and includes a first wall [151], a second wall [153], a third wall [156], a fourth wall [157], a first curved lifter surface [154], a second curved lifter surface [155], and a lifter surface [152];
    - iv) the first wall [151] faces the second wall [153];
    - v) the second wall [153] faces the first wall [151];
    - vi) the third wall [156] extends axially into the valve lifter body [110] from the first lifter opening [132], faces the fourth wall [157], and terminates at least in part at the second curved lifter surface [155]; vii) the fourth wall [157] extends axially into the valve lifter body [110]
    - from the first lifter opening [132], faces the third wall [156], and terminates at least in part at the first curved lifter surface [154];
    - viii) the first curved lifter surface [154] extends from the fourth wall [157] and is located adjacent to the lifter surface [152];
    - ix) the second curved lifter surface [155] extends from the third wall [156] and is located adjacent to the lifter surface [152]
    - x) the lifter surface [152] is, relative to the curved lifter surfaces [154, 155], generally flat and oriented to be generally orthogonal to a valve lifter axis [111];
- c) cold forming a second lifter cavity [131] into the forgeable material so that: i) the second lifter cavity [131] extends axially into the forgeable material from a second lifter opening [133]; ii) the second lifter cavity [131] includes a second inner lifter surface [170]; and
- d) machining the second inner lifter surface [170] to provide a plurality of cylindrical surfaces.
- 16. The process of claim 15 further comprising the step of fabricating, at least in part, a socket body [310] through cold forming.

- 17. The process of claim 15 further comprising the step of fabricating, at least in part, a leakdown plunger [210] through cold forming.
- 18. The process of claim 15 further comprising the steps of:
  - a) fabricating, at least in part, a socket body [310] through cold forming; and
  - b) fabricating, at least in part, a leakdown plunger [210] through cold forming.
- 19. The process of claim 15 further comprising the steps of:
- a) cold forming the forgeable material to provide, at least in part, a first end wherein the second lifter cavity [131] is located and a second end wherein the second lifter opening [133] is located; and
- b) cold forming the forgeable material to include an undercut lifter surface [see text] that extends from the second end.
- 20. The process of claim 15 wherein the step of cold forming the second lifter cavity [131] into the forgeable material includes providing, at least in part, a lifter well [162].
- 21. The process of claim 15 further comprising the steps of:
  - a) providing the forgeable material with an outer lifter surface [180]; and
- b) machining the outer lifter surface [180], at least in part, to provide a first cylindrical surface [181] and a second cylindrical surface [182] wherein the first cylindrical surface [181] is provided with a first radius and the second cylindrical surface [182] is provided with a second radius that is smaller than the first radius.
- 22. The process of claim 15 further comprising the steps of:
  - a) providing the forgeable material with an outer lifter surface [180]; and
- b) cold forming the forgeable material to provide, at least in part, a cylindrical surface [see text] with a reduced diameter located on the outer lifter surface [180].
- 24. A process for manufacturing a valve lifter body [110] that includes a valve lifter axis [111], comprising the steps of:
  - a) providing a forgeable material;
  - b) cold forming a first lifter cavity [130] into the forgeable material so that:
    - i) a first end is provided wherein the first end includes a first lifter opening [132] shaped to accept a roller [190];
    - ii) the first lifter cavity [130] includes a first inner lifter surface [150] provided with a first wall [151], a second wall [153], a third wall [156], a fourth wall [157], a first curved lifter surface [154], a second curved lifter surface [155], and a lifter surface [152];
    - iii) the walls extend axially into the forgeable material from the first lifter opening and are positioned so that:
      - 1) the first wall [151] faces the second wall [153];
      - 2) the second wall [153] faces the first wall [151];
      - 3) the third wall [156] extends axially into the valve lifter body
      - [110] from the first lifter opening [132], faces the fourth wall

- [157], and is located adjacent to the second curved lifter surface [155];
- 4) the fourth wall [157] extends axially into the valve lifter body [110] from the first lifter opening [132], faces the third wall [156] and is located adjacent to the first curved lifter surface [154];
- iv) the first curved lifter surface [154] extends from the fourth wall [157] and is located adjacent to the lifter surface [152];
- v) the second curved lifter surface [155] extends from the third wall [156] and is located adjacent to the lifter surface [152];
- vi) the lifter surface [152] is, relative to the curved lifter surfaces [154, 155], generally flat and oriented to be generally orthogonal to the valve lifter axis [111];
- c) cold forming a second lifter cavity [131] into the forgeable material so that:
  - i) a second end is provided wherein the second end includes a second lifter opening [133] that is generally cylindrical in shape;
  - ii) the second lifter cavity [131] extends axially into the valve lifter body [110] from the second lifter opening [133];
  - iii) the second lifter cavity [131] includes a second inner lifter surface [170]; and
- d) heat-treating the valve lifter body [110].
- 25. The process of claim 24 further comprising the step of fabricating, at least in part, a socket body [310] through cold forming.
- 26. The process of claim 24 further comprising the step of fabricating, at least in part, a leakdown plunger [210] through cold forming.
- 27. The process of claim 24 further comprising the steps of:
  - a) fabricating, at least in part, a socket body [310] through cold forming; and
  - b) fabricating, at least in part, a leakdown plunger [210] through cold forming.
- 28. The process of claim 24 further comprising the step of cold forming the forgeable material to include an undercut lifter surface [see text] that extends from the second end.
- 29. The process of claim 24 wherein the step of cold forming the second lifter cavity [131] into the forgeable material includes providing, at least in part, a lifter well [162].
- 30. The process of claim 24 further comprising the steps of:
  - a) providing the forgeable material with an outer lifter surface [180]; and
- b) machining the outer lifter surface [180], at least in part, to provide a first cylindrical surface [181] and a second cylindrical surface [182] wherein the first cylindrical surface [181] is provided with a first radius and the second cylindrical surface [182] is provided with a second radius that is smaller than the first radius.
- 31. The process of claim 24 further comprising the steps of:
  - a) providing the forgeable material with an outer lifter surface [180]; and

- b) cold forming the forgeable material to provide, at least in part, a cylindrical surface [see text] with a reduced diameter located on the outer lifter surface [180].
- 33. A process for manufacturing a valve lifter body [110] that includes a valve lifter axis [111], a first lifter cavity [130] with a first inner lifter surface [150] extending from a first lifter opening [132] located at a first end, and a second lifter cavity [131] with a second inner lifter surface [170] extending from a second lifter opening [133] located at a second end, wherein the first inner lifter surface [150] includes a first wall [151], a second wall [153], a third wall [156], a fourth wall [157], a first angled wall [169-a], a second angled wall [169-b], a third angled wall [169-c], a fourth angled wall [169-d], a first angled lifter surface [165], a second angled lifter surface [166], a third angled lifter surface [167], and a fourth angled lifter surface [168], the process for manufacturing the valve lifter body [110] comprising the steps of:
  - a) providing a forgeable material;
- b) cold forming the walls [151, 153, 156, 157], the angled walls [169-a-d], and the angled lifter surfaces [165, 166, 167, 168] so that:
  - i) the walls [151, 153, 156, 157] extend axially into the forgeable material from the first lifter opening [132] and are positioned so that the first wall [151] faces the second wall [153] and the third wall [156] faces the fourth wall [157];
  - ii) the first angled lifter surface [165] is located adjacent to the first wall [151] and the fourth wall [157];.
  - iii) the second angled lifter surface [166] is located adjacent to the first wall [151] and the third wall [156];
  - iv) the third angled lifter surface [167]is located adjacent to the second wall [153] and the third wall [156];
  - v) the fourth angled lifter surface [168] is located adjacent to the second wall [153] and the fourth wall [157];
  - vi) the first angled wall [169-a] extends axially into the forgeable material from the first lifter opening [132] and terminates, at least in part, at the first angled lifter surface [165];
  - vii) the second angled wall [169-b] extends axially into the valve lifter body [110] from the first lifter opening [132] and terminates, at least in part, at the third angled lifter surface [167];
  - viii) the third angled wall [169-c] extends axially into the valve lifter body [110] from the first lifter opening [132] and terminates, at least in part, at the fourth angled lifter surface [168];
  - ix) the fourth angled wall [169-d] extends axially into the valve lifter body [110] from the first lifter opening [132] and terminates, at least in part, at the second angled lifter surface [166];
- c) cold forming the second lifter cavity [131] into the forgeable material so that the second lifter cavity [131] extends axially into the forgeable material from the second lifter opening [133] and includes the second inner lifter surface [170] that is generally cylindrical in shape; and
  - d) heat treating the valve lifter body [110].

- 34. The process of claim 33 wherein the step of cold forming the walls [151, 153, 156, 157], the angled walls [169-a-d], and the angled lifter surfaces [165, 166, 167, 168] further includes orienting at least one of the angled lifter surfaces [165, 166, 167, 168] to be at an angle [400A] relative to a plane that is orthogonal to the valve lifter axis [111], the angle measuring between twenty-five and about ninety degrees.
- 35. The process of claim 33 wherein the step of cold forming the walls [151, 153, 156, 157], the angled walls [169-a-d], and the angled lifter surfaces [165, 166, 167, 168] further includes orienting the fourth angled lifter surface [168] to extend from the third angled wall [169-c] at an angle [400A] relative to a plane that is orthogonal to the valve lifter axis [111] measuring between 45 degrees and 65 degrees.
- 37. The process of claim 33 wherein the step of cold forming the walls [151, 153, 156, 157], the angled walls [169-a-d], and the angled lifter surfaces [165, 166, 167, 168] further includes orienting at least one of the angled lifter surfaces [165, 166, 167, 168] to extend from at least one of the angled walls [169-a-d] at an angle [400A] relative to a plane that is orthogonal to the valve lifter axis [111] measuring between 25 degrees and 75 degrees.
- 38. The process of claim 33 wherein the step of cold forming the walls [151, 153, 156, 157], the angled walls [169-a-d], and the angled lifter surfaces [165, 166, 167, 168] further includes orienting at least one of the angled lifter surfaces [165, 166, 167, 168] to be at an angle [400A] relative to a plane that is orthogonal to the valve lifter axis [111].
- 39. The process of claim 33 wherein the step of cold forming the walls [151, 153, 156, 157], the angled walls [169-a-d], and the angled lifter surfaces [165, 166, 167, 168] further includes providing a first curved lifter surface [154] and a second curved lifter surface [155] so that:
- a) the fourth wall [157] extends axially into the forgeable material from the first lifter opening [132] and terminates, at least in part, at the first curved lifter surface [154]; and
- b) the third wall [156] extends axially into the forgeable material from the first lifter opening [132] and terminates, at least in part, at the second curved lifter surface [155].
- 40. The process of claim 33 wherein the step of cold forming the walls [151, 153, 156, 157], the angled walls [169-a-d], and the angled lifter surfaces [165, 166, 167, 168] further includes providing a first curved lifter surface [154] and a second curved lifter surface [155] so that:
- a) the fourth wall [157] extends axially into the valve lifter body [110] from the first lifter opening [132] and terminates, at least in part, at the first curved lifter surface [154];
- b) the third wall [156] extends axially into the valve lifter body [110] from the first lifter opening [132] and terminates, at least in part, at the second curved lifter surface [155];
  - c) the first angled lifter surface [165] is located adjacent to the first wall [151], the

- fourth wall [157], the first angled wall [169-a], and the first curved lifter surface [154];
- d) the second angled lifter surface [166] is located adjacent to the first wall [151], the third wall [156], the fourth angled wall [169-d], and the second curved lifter surface [155];
- e) the third angled lifter surface [167] is located adjacent to the second wall [153], the third wall [156], the second angled wall [169-b], and the second curved lifter surface [155]; and
- f) the fourth angled lifter surface [168] is located adjacent to the second wall [153], the fourth wall [157], the third angled wall [169-c], and the first curved lifter surface [154].
- 41. The process of claim 33 wherein the step of cold forming the walls [151, 153, 156, 157], the angled walls [169-a-d], and the angled lifter surfaces [165, 166, 167, 168] further includes:
- a) providing the first angled lifter surface [165] so that it is located adjacent to the first wall [151], the fourth wall [157], and the first angled wall [169-a];
- b) providing the second angled lifter surface [166] so that it is located adjacent to the first wall [151], the third wall [156], and the fourth angled wall [169-d];
- c) providing the third angled lifter surface [167] so that it is located adjacent to the second wall [153], the third wall [156], and the second angled wall [169-b];
- d) providing the fourth angled lifter surface [168] so that it is located adjacent to the second wall [153], the fourth wall [157], and the third angled wall [169-c];
- e) providing at least one of the angled lifter surfaces [165, 166, 167, 168] so that it extends from at least one of the angled walls [169-a-d] towards the valve lifter axis [111]; and
- f) orienting at least one of the angled lifter surfaces [165, 166, 167, 168] to be at an angle [400A] relative to a plane that is orthogonal to the valve lifter axis [111], the angle measuring between twenty-five and about ninety degrees.
- 44. A process for manufacturing a valve lifter body [110] that includes a valve lifter axis [111], comprising the steps of:
  - a) providing a forgeable material;
  - b) cold forming a first lifter cavity [130] into the forgeable material so that:
    - i) the forgeable material is provided with a first lifter opening [132] that is shaped to accept a roller [190];
    - ii) the first lifter cavity [130] extends axially into the forgeable material from the first lifter opening [132] and includes a first inner lifter surface [150] that is provided with a first wall [151], a second wall [153], a third wall [156], a fourth wall [157], a first angled wall [169-a], a second angled wall [169-b], a third angled wall [169-c], a fourth angled wall [169-d], a first curved lifter surface [154], a second curved lifter surface [155], and a lifter surface [152];
    - iii) the first wall [151] and the second wall [153] extend axially into the forgeable material from the first lifter opening [132] and are positioned so that the first wall [151] faces the second wall [153];

- iv) the third wall [156] extends axially into the forgeable material from the first lifter opening [132] and terminates, at least in part, at the second curved lifter surface [155];
- v) the fourth wall [157] extends axially into the forgeable material from the first lifter opening [132] and terminates, at least in part, at the first curved lifter surface [154];
- vi) the third wall [156] and the fourth wall [157] are positioned so that the third wall [156] faces the fourth wall [157];
- vii) the first angled wall [169-a] extends axially into the forgeable material from the first lifter opening [132], faces the second angled wall [169-b], and is located between the fourth wall [157] and the first wall [151]; viii) the second angled wall [169-b] extends axially into the forgeable material from the first lifter opening [132], faces the first angled wall [169-a], and is located between the second wall [153] and the third wall [156];
- ix) the third angled wall [169-c] extends axially into the forgeable material from the first lifter opening [132], faces the fourth angled wall [169-d], and is located between the second wall [153] and the fourth wall [157]; x) the fourth angled wall [169-d] extends axially into the forgeable material from the first lifter opening [132], faces the third angled wall [169-c], and is located between the first wall [151] and the third wall [156];
- xi) the first and the second curved lifter surfaces [154, 155] are, at least in part, located adjacent to the lifter surface [152], which is, relative to the curved lifter surfaces [154, 155], generally flat and oriented to be generally orthogonal to the valve lifter axis [111];
- c) cold forming a second lifter cavity [131] into the forgeable material so that:
   i) the forgeable material is provided with a second lifter opening [133];
   and
  - ii) the second lifter cavity [131] extends axially into the forgeable material from the second lifter opening [133] and includes a second inner lifter surface [170].
- 45. The process of claim 44 further comprising the step of fabricating, at least in part, a socket body [310] through cold forming.
- 46. The process of claim 44 further comprising the step of fabricating, at least in part, a leakdown plunger [210] through cold forming.
- 47. The process of claim 44 further comprising the steps of: a) fabricating, at least in part, a socket body [310] through cold forming; and b) fabricating, at least in part, a leakdown plunger [210] through cold forming.
- 48. The process of claim 44 further comprising the steps of:
- a) cold forming the forgeable material to provide, at least in part, a first end wherein the first lifter opening [132] is located and a second end wherein the second lifter

opening [133] is located; and

- b) cold forming the forgeable material to include an undercut lifter surface [see text] that extends from the second end.
- 49. The process of claim 44 wherein the step of cold forming the second lifter cavity [131] includes providing, at least in part, a lifter well [162].
- 50. The process of claim 44 further comprising the steps of:
  - a) providing the forgeable material with an outer lifter surface [180]; and
- b) machining the outer lifter surface [180], at least in part, to provide a first cylindrical surface [181] and a second cylindrical surface [182] wherein the first cylindrical surface [181] is provided with a first radius and the second cylindrical surface [182] is provided with a second radius that is smaller than the first radius.
- 51. The process of claim 44 further comprising the steps of:
  - a) providing the forgeable material with an outer lifter surface [180]; and
- b) cold forming the forgeable material to provide, at least in part, a cylindrical surface [see text] with a reduced diameter located on the outer lifter surface [180].
- 53. The process of claim 44 wherein the step of cold forming the first lifter cavity [130] further includes providing the lifter surface [152] with a generally circular shape.
- 55. The process of claim 44 wherein the first lifter opening [132] is a chamfered opening [see text] that has been fabricated, at least in part, through cold forming.
- 57. The process of claim 44 wherein the step of cold forming the first lifter cavity [130] further includes:
- a) providing a first angled lifter surface [165] so that it is located adjacent to the first wall [151], the fourth wall [157], and the first angled wall [169-a];
- b) providing a second angled lifter surface [166] so that it is located adjacent to the first wall [151], the third wall [156], and the fourth angled wall [169-d];
- c) providing a third angled lifter surface [167] so that it is located adjacent to the second wall [153], the third wall [156], and the second angled wall [169-b];
- d) providing a fourth angled lifter surface [168] so that it is located adjacent to the second wall [153], the fourth wall [157], and the third angled wall [169-c];
- e) providing at least one of the angled lifter surfaces [165, 166, 167, 168] so that it extends from at least one of the angled walls [169-a-d] towards the valve lifter axis [111]; and
- f) orienting at least one of the angled lifter surfaces [165, 166, 167, 168] to be at an angle [400A] relative to a plane that is orthogonal to the valve lifter axis [111], the angle measuring between twenty-five and about ninety degrees.
- 60. A process for manufacturing a valve lifter body [110] that includes a valve lifter axis [111], a first lifter cavity [130] with a first inner lifter surface [150] extending from a first lifter opening [132] located at a first end, and a second lifter cavity [131] with a second

inner lifter surface [170] extending from a second lifter opening [133] located at a second end, wherein the first inner lifter surface [150] includes a first wall [151], a second wall [153], a third wall [156], a fourth wall [157], a first curved lifter surface [154], a second curved lifter surface [155], and a lifter surface [152], the process for manufacturing the valve lifter body [110] comprising the steps of:

- a) providing a forgeable material;
- b) cold forming the walls [151, 153, 156, 157], the curved lifter surfaces [154, 155], and the lifter surface [152] into the forgeable material so that:
  - i) the first wall [151] faces the second wall [153];
  - ii) the second wall [153] faces the first wall [151];
  - iii) the third wall [156] extends axially into the forgeable material from the first lifter opening [132], faces the fourth wall [157], and terminates, at least in part, at the second curved lifter surface [155];
  - iv) the fourth wall [157] extends axially into the forgeable material from the first lifter opening [132], faces the third wall [156], and terminates, at least in part, at the first curved lifter surface [154];
  - v) the first curved lifter surface [154] extends from the fourth wall [157] and terminates, at least in part, at the lifter surface [152];
  - vi) the second curved lifter surface [155] extends from the third wall [156] and terminates, at least in part, at the lifter surface [152];
  - vii) the lifter surface [152] is, relative to the curved lifter surfaces [154, 155], generally flat and oriented to be generally orthogonal to the valve lifter axis [111]; and
- c) cold forming the second lifter cavity [131] into the forgeable material so that the second lifter cavity [131] extends axially into the forgeable material from the second lifter opening [133] and includes the second inner lifter surface [170] that is generally cylindrical in shape.
- 61. The process of claim 60 further comprising the step of fabricating, at least in part, a socket body [310] through cold forming.
- 63. The process of claim 60 further comprising the steps of:
  - a) fabricating, at least in part, a socket body [310] through cold forming; and
  - b) fabricating, at least in part, a leakdown plunger [210] through cold forming.
- 64. The process of claim 60 further comprising the steps of cold forming the forgeable material to include an undercut lifter surface [see text] that extends from the second end.
- 65. The process of claim 60 wherein the step of cold forming the second lifter cavity [131] includes providing, at least in part, a lifter well [162].
- 66. The process of claim 60 further comprising the steps of:
  - a) providing the forgeable material with an outer lifter surface [180]; and
- b) machining the outer lifter surface [180], at least in part, to provide a first cylindrical surface [181] and a second cylindrical surface [182] wherein the first

cylindrical surface [181] is provided with a first radius and the second cylindrical surface [182] is provided with a second radius that is smaller than the first radius.

- 67. The process of claim 60 further comprising the steps of:
- a) providing the forgeable material with an outer lifter surface [180]; and
- b) cold forming the forgeable material to provide, at least in part, a cylindrical surface [see text] with a reduced diameter located on the outer lifter surface [180].
- 68. The process of claim 60 wherein the step of machining the second inner lifter surface [170] further includes providing, at least in part, a lifter well [162] that is generally cylindrical in shape with a diameter that is smaller than a diameter of the second inner lifter surface [170].
- 69. The process of claim 60 wherein the step of cold forming the walls [151, 153, 156, 157], the curved lifter surfaces [154, 155], and the lifter surface [152] further includes providing the lifter surface [152] with a generally circular shape.
- 71. The process of claim 60 wherein the first lifter opening [132] is a chamfered opening [see text] that has been fabricated, at least in part, through cold forming.

# Exhibit 2

#### Eaton Part No. 328347 – Leakdown Plunger

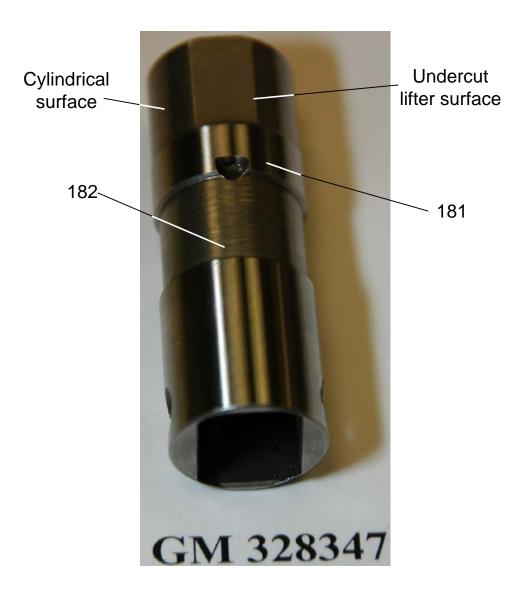


Photograph No. 1

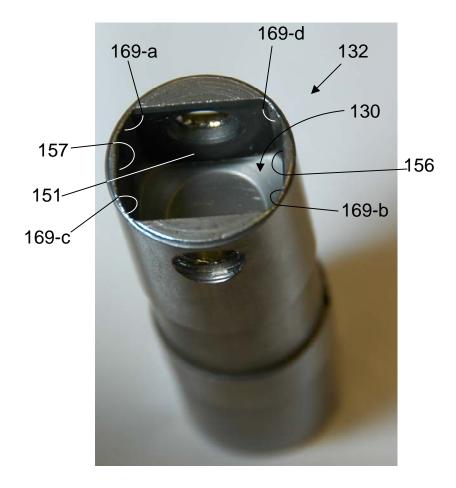
#### Eaton Part No. 328347 - Socket



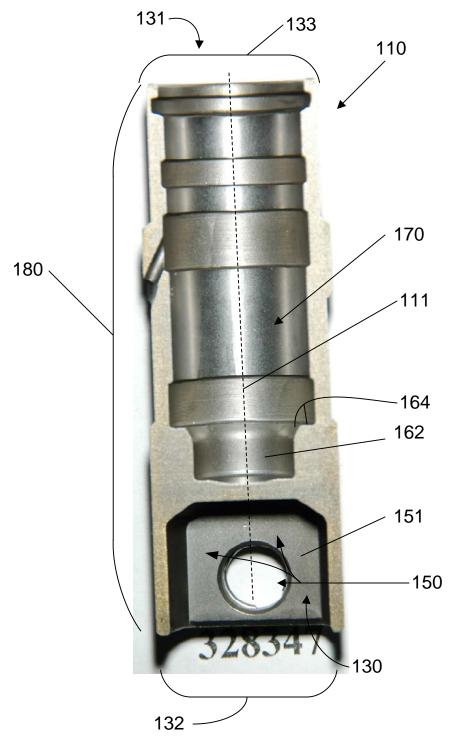
Photograph No. 2



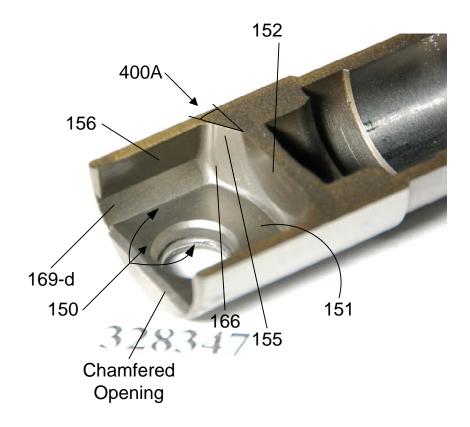
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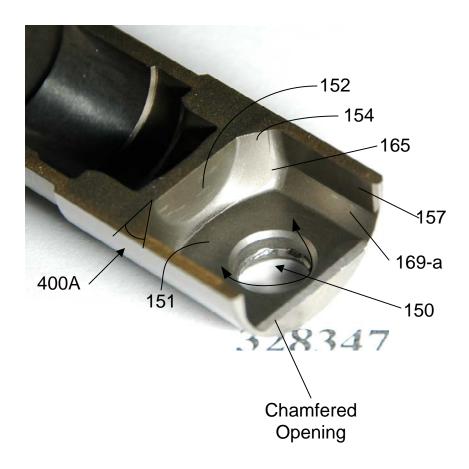
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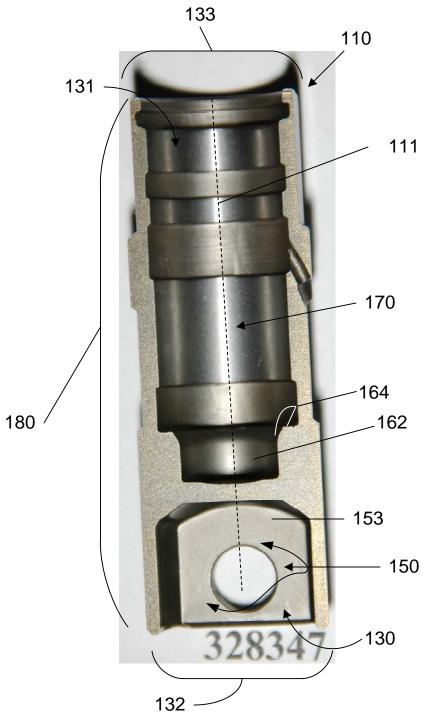
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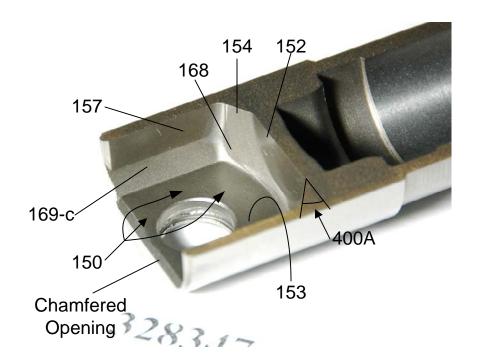
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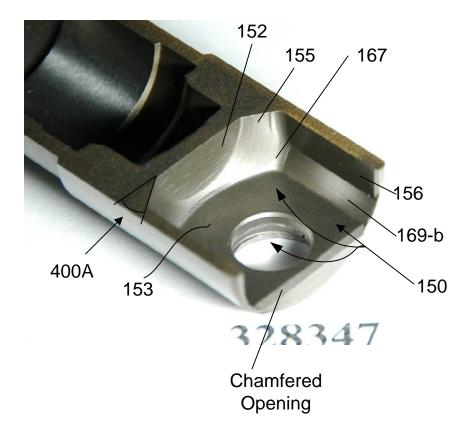
Photograph No. 7



Photograph No. 8



Photograph No. 9



Photograph No. 10

#### Eaton Part No. 328347 - Roller



Photograph No. 11